

Iowa Department of Natural Resources
Environmental Protection Commission

ITEM

DECISION

TOPIC

For Adoption. Amendments to Chapter 135, Technical Standards and
Corrective Action Requirements for Owners and Operators of Underground
Storage Tanks

**ATTACHMENTS: Rule Amendment to 567 IAC 135
Iowa UST Fund Board and DNR 28E Agreement (signed).
Response Summary to Public Hearing Comments**

The Department presents these rules for adoption and filing by the Commission. The Notice of Intended Action was published as ARC 7400B in the 12/3/08 issue of the Iowa Administrative Bulletin.

In summary, these rules replace some provisions adopted in June 2008 pertaining to assessment of risk to public water supply wells (PWSWs). An alternative approach to assessing risk to PWSWs was negotiated between the Department, and key stakeholders (UST Fund Board, Petroleum Marketers Management Insurance Company, and Water Supply organizations). The alternative approach is to implement a study on the impact of petroleum UST releases to PWSWs. The study is to be conducted jointly between DNR and UST Fund (via 28E Agreement -attached), and essentially replaces the requirement for owners and operators to complete a special PWSW assessment when the well falls outside the modeled or actual plume area (as adopted by rule in June). The new approach calls for rescinding those parts of rule related special PWSW assessment procedures (as presented herein). Because there may be cases where a LUST site may not be eligible for funding under the 28E agreement (should the study identify an unreasonable risk to a PWSW from a LUST site), a provision was also added to the rule (ITEM 2) that allows the Department to require owners / operators to take necessary assessment and corrective action measures to address risk in accordance with provisions of Chapter 135. To better explain the history behind the many rule changes, background information is provided following this summary (and as written in the November EPC Agenda Brief).

During the November 2008, the Commission approved the Notice of Intended Action with minor modification to Item 2 regarding when pathways need to be reevaluated. The Commission also approved the 28E Agreement that accompanies these rule amendments, with a suggested change in wording that the agreement be jointly administered by the DNR and UST Fund Board. The wording was changed and approved by the UST Fund Board at their December 11, 2008, meeting.

Because of the extensive number of stakeholder meetings held over the past year, only one public hearing was held after publication of the notice. Comments were heard from a representative of the Petroleum Marketers and Convenience Stores of Iowa (PMCI). Two concerns were brought forth: 1) the commenter believes the 28E agreement should have addressed prohibition of any additional PWSW installations (through the DNR's permitting process) when an existing PWSW was determined to be at an unreasonable risk from a UST petroleum release during the study; 2) the commenter is concerned that new paragraph 'e' will 'open the door' for the Department to ask for further assessment of pathways and receptors other than the PWSW receptor which was the sole focus of the rule changes. The Department has responded to these comments in the attached Public Hearing Response Summary.

These comments did not warrant changes to the rules presented for final adoption.

Wayne Gieselman
Administrator
Environmental Protection Division

February, 2009

Background

Approximately two years ago, the DNR and other interested stakeholders began a process to review a computer model used to predict the areal extent of plumes from leaking underground storage tanks. The model was 10 years old and in many cases largely overestimated the areal extent of plumes when compared to actual plumes that had been measured in our 10 years of working with the model. The DNR worked with the UST Fund, Dr. LaDon Jones from Iowa State University, groundwater professionals, and the private insurance sector to develop this model. In order to replace the "old" model with the new model which is more reflective of measured plumes, a rulemaking package was proposed.

This rulemaking package was proposed to the EPC in November of 2007. At that time, representatives of the public water supply sector expressed concern that the new model may not provide adequate protection of their source water areas. EPC directed staff to go back and work with water supplies and the other stakeholders to make sure their concerns were taken into account. In January of 2008, a revised rule package was proposed to the EPC which was sent out for public comment. At the March meeting of the Administrative Rules Review Committee (ARRC), the regulated community expressed opposition to parts of the rule dealing with special public water supply well assessment procedures, and subsequently the ARRC directed the DNR to undertake a regulatory analysis of the rules and continue conversations with the stakeholders. For the next two months, regular meetings were held and a regulatory analysis of the rules was completed. We met again with ARRC in May where we identified some changes that could be made to the rules, but that these changes needed to go back to the EPC for action.

In June, 2008 the Commission adopted a package of amendments to the "risk based corrective action" (RBCA) rules in chapter 567 IAC 135. These rules were to become effective on August 6, 2008. At its July meeting, the ARRC expressed concern about the rules for some of the same reasons expressed in March and exercised its authority to delay the effective date of the rules for 70 days. The Committee encouraged opposing stakeholders and the DNR to attempt to reach resolution. (See Iowa Code section 17A.4). The delay of the effective date was set to expire on October 16, 2008. At the October 14, 2008 ARRC meeting, after hearing that a consensus among stakeholders had been reached on an alternative approach to the special well assessment procedures, the DNR and stakeholders recommended and the Committee approved a session delay on those parts of the rule that were objectionable.

Alternative Resolution

1. The DNR and stakeholder groups have reached a tentative agreement to resolve the controversial aspects of the rule package.¹ The resolution requires a decision by the EPC to a) initiate further

¹ The non-controversial parts of the rule package related to the substitution of a "recalibrated" groundwater transport model for the existing model which was thought to be unnecessarily overpredictive, i.e. it assumed contamination in groundwater moved horizontally much further than it actually does. A technical advisory group had studied the groundwater model that was adopted in 1996 and modified it based on comparison to actual groundwater movement data accumulated over the past 10 years or more. The "recalibrated" model is expected to in some cases significantly reduce or shrink the predicted area of movement and thereby reduce the predicted impact on "receptors". The rule package also had some revisions to implement current practice of conducting "corrective action meetings" with responsible owners and operators, funding sources and other interested parties to jointly develop corrective action plans to address contaminated sites. It had some non-controversial provisions regarding notice to public water supplies when releases occur within 2,500 feet of their wells and also a requirement

rulemaking to essentially rescind selected parts of the adopted rules, and b) approve a funding agreement between the Iowa Comprehensive Petroleum Underground Storage Tank Board (UST Fund) and the DNR.

2. The controversial aspect of the rule package is a provision that establishes a special risk evaluation process for public water supply wells (pws) that are located outside of the predicted area of groundwater contamination as determined by a two-dimensional model. The provision assigns responsibility for the initial pws risk evaluation to owners and operators of LUST sites and their groundwater professional. Under pre-existing rules, UST owners and operators had no responsibility to assess any wells located outside the modeled or predicted area of groundwater migration. The concern from a technical point of view has been that the model does not take into account the pumping influence of wells and vertical movement of groundwater that could extend to wells outside the modeled plume and that the rules are simply ignoring potential risk to these critical resources.

3. Funding agencies and some of the regulated community felt that the rules placed an excessive and uncertain financial burden on them to assess risk to wells over a large area where there could be multiple contributing sources and that the assessment could result in excessive costs without sufficient documentation or justification that there was a need for this new procedure.

4. The DNR negotiated a resolution with representatives from the two primary stakeholder groups. One group is represented by the Petroleum Marketers Management Insurance Company (PMMIC) which insures about 70% of UST sites in Iowa and the UST Fund which is a state agency that provides financial assistance for "old" UST releases that essentially occurred prior to October 1990. Representatives of the Iowa Association of Municipal Utilities, the Iowa Rural Water Association, and the Iowa Association of Water Agencies have represented the other major stakeholder interests.

5. The DNR and these groups have prepared a proposal which would require the Commission to initiate a rulemaking to revise the adopted rules by removing the provisions that allocated responsibility for conducting a pws risk assessment to owners and operators and the DNR. That provision also granted authority to the DNR to require owners and operators to take further corrective action if sufficient proof of risk was established through this process. The negotiated proposal would provide that the DNR and the Iowa UST Fund enter into a 28E agreement in which the DNR and the UST Fund would jointly conduct a "study" of potential risk to pws that are located outside the modeled groundwater plume.

6. Under the basic terms of the 28E agreement (attached), the UST Fund would provide funding for no less than 125 sites to allow the DNR and the UST Fund to jointly study various types of risk assessment techniques, including "desktop" analyses, limited field work to determine the potential pumping influence of wells outside the modeled plume, recalibration of the existing two-dimensional model to more accurately identify risk to pumping wells and generally study the frequency and effects of impacts to wells outside the modeled plume. After the study is completed,

to sample all wells within 100 feet of an actual groundwater plume. With resolution of the pws risk assessment provisions, all parties appear to support maintenance of these adopted amendments.

and depending on the findings, the DNR would then have the option to initiate further rulemaking to propose a risk assessment procedure for wells located outside the modeled plume.

7. Under the terms of the 28E, if unacceptable risk to a pwsu is established, the UST Fund will provide funding to undertake further corrective action under two basic scenarios. One is where the DNR has classified the site as "no further action" (NFA) and issued a certificate but risk is subsequently established under this study such that the site must be "reopened". The other situation is where a NFA certificate has not been issued at the time a risk to a pwsu is established. In this case, the UST Fund would provide financial assistance under their existing remedial benefits program to claimants that are otherwise "fund eligible" (basically any sites with pre-1990 releases). But any site not fund eligible would not be granted funding to take necessary further action.

8. To address the concern that risk to a pwsu could be established under the study but funding for corrective action under this agreement may not be available in some cases, the DNR proposes an amendment to chapter 135 (per this notice) that would need to accompany the 28E agreement. The amendment gives the DNR discretion or "reservation authority" to require owners and operators to undertake further corrective action in the event that unacceptable risk to a pwsu is established during the study but funding under the 28E is insufficient or unavailable to undertake these actions. Without this provision, the 28E by its terms could identify a legitimate risk to a pwsu but provide no funding in certain cases. Without a rule amendment, the DNR may not have a legal basis to impose the regulatory obligations on the responsible owner since the well falls outside the modeled plume and under existing rules owners and operators may not have regulatory responsibility for wells outside the modeled plume. The stakeholders and the DNR are in consensus with the reservation language of the proposed rule.